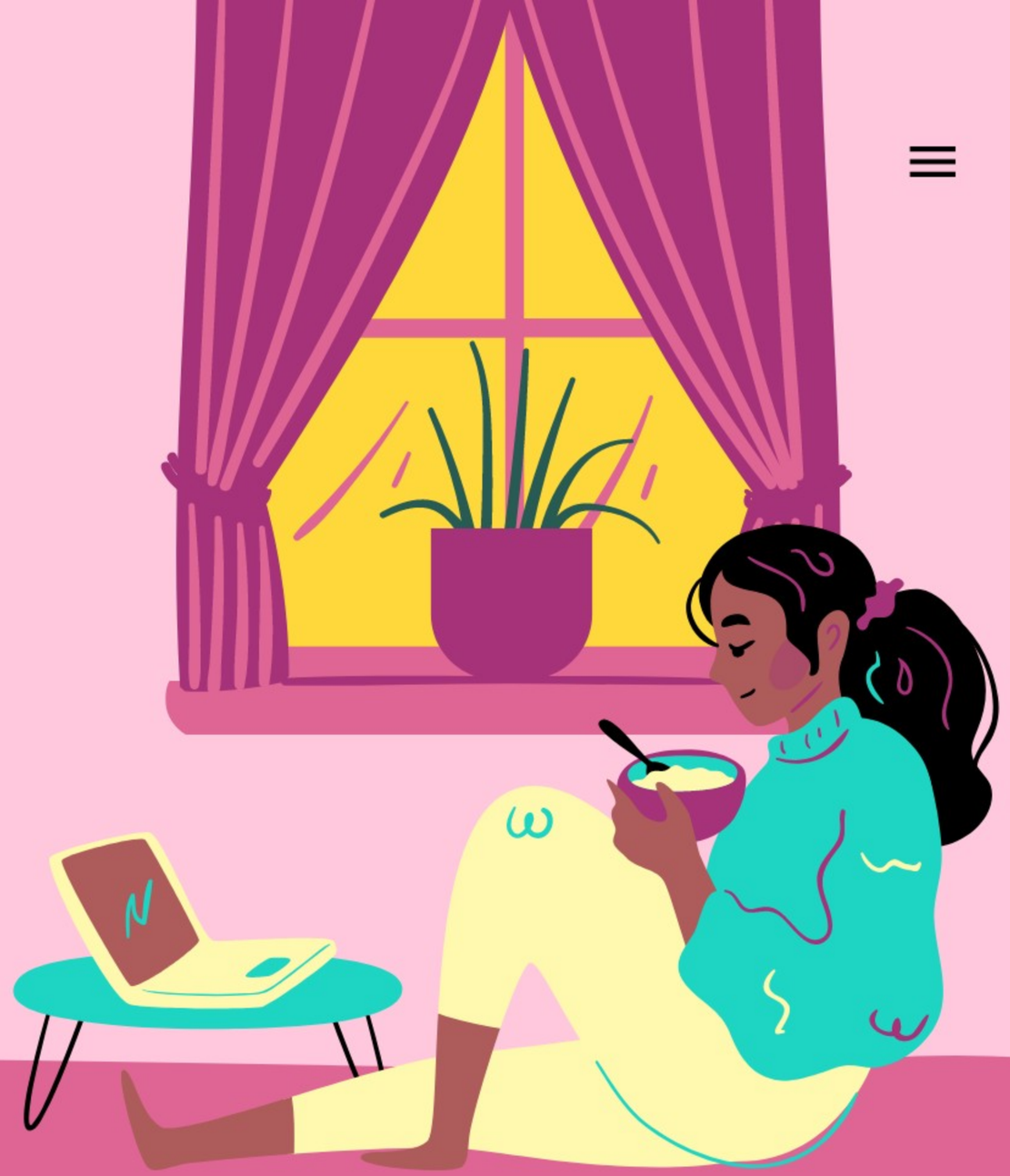
CHAPTER 4

APPLICATION OF SUPPLY AND DEMAND

Applied Economics



LEARNING OBJECTIVES

At the end of this chapter, the learners will be able to:

- explain the law of supply and demand;
- discuss and explain factors affecting supply and demand;
- compare the prices of commodities and analyze the impact on consumers;
- explain market structures and uses of money; and
- understand the labor market and labor supply.

THE LAW OF SUPPLY AND DEMAND

To an economist, the term DEMAND is very different from the terms need and want.

DEMAND

- is the **willingness and ability** of consumers to *buy products* at certain prices over a certain period.

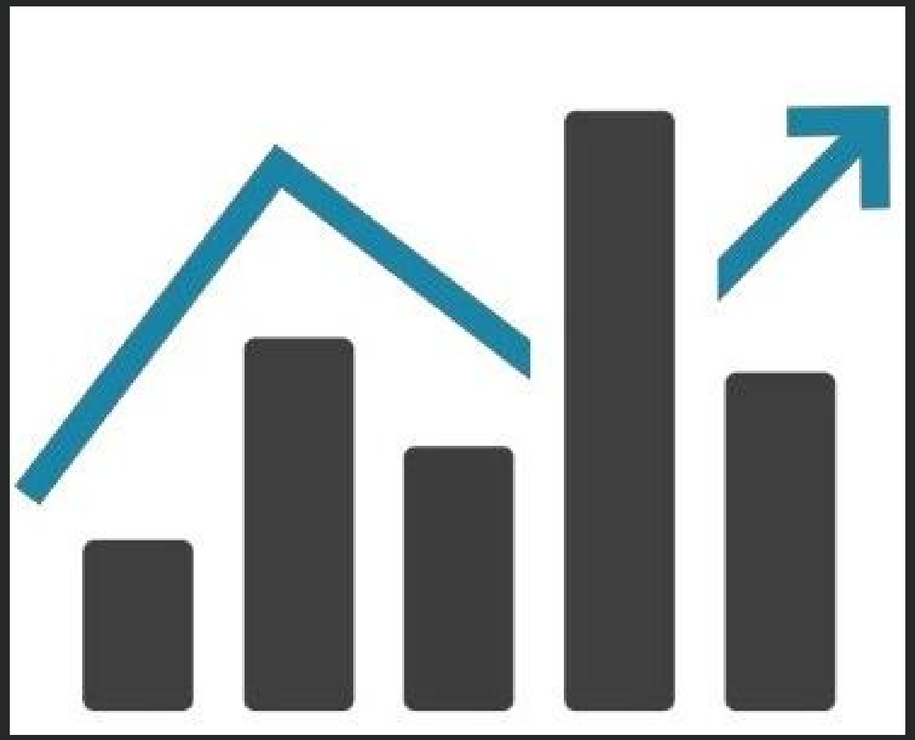
- is a concept that relates the desire people have for goods and services to the sacrifices (costs) they are willing to make to get them.

NOTE: Needs and desires are subjective and are very difficult to measure. Demand, however, can be quantified.

THE LAW OF DEMAND

- states that there is a relationship between the price of a good and the amount of it that people are willing and able to buy.

- stipulates an inverse or negative relationship between the price of any good and the quantity that people will buy.



Always remember!

In the law of demand, price is the cause and quantity is the effect. It means that when a price goes up, the quantity demanded goes down. On the other hand, when the price falls, the quantity demanded goes up.

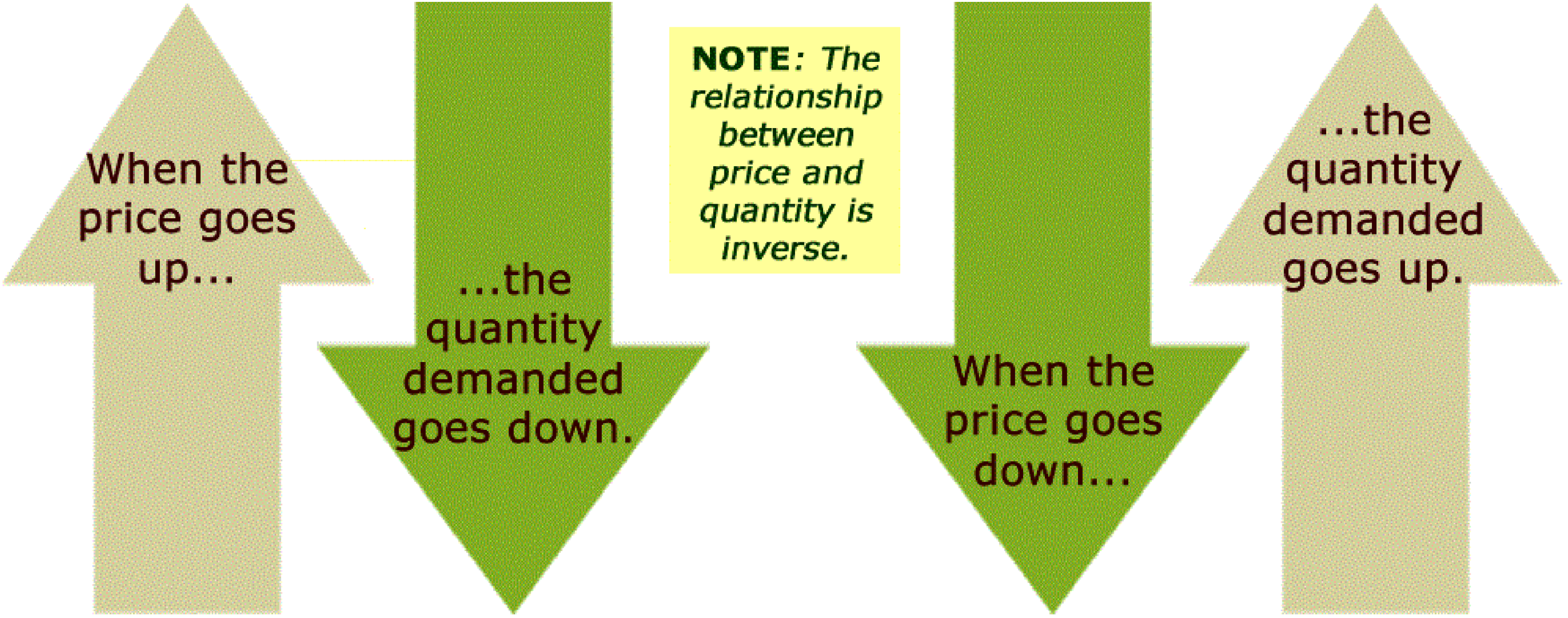
PRICE CAUSES THE CHANGE.

In Mathematical terms, **price** is the ***independent variable*** and **quantity** is the ***dependent variable.***

Of course, this discussion assumes...

Ceteris Paribus - which means that everything else stays the same and that price is the only thing that changes.

Law of Demand


When the price goes up...
...the quantity demanded goes down.
NOTE: The relationship between price and quantity is inverse.
When the price goes down...
...the quantity demanded goes up.

SUPPLY

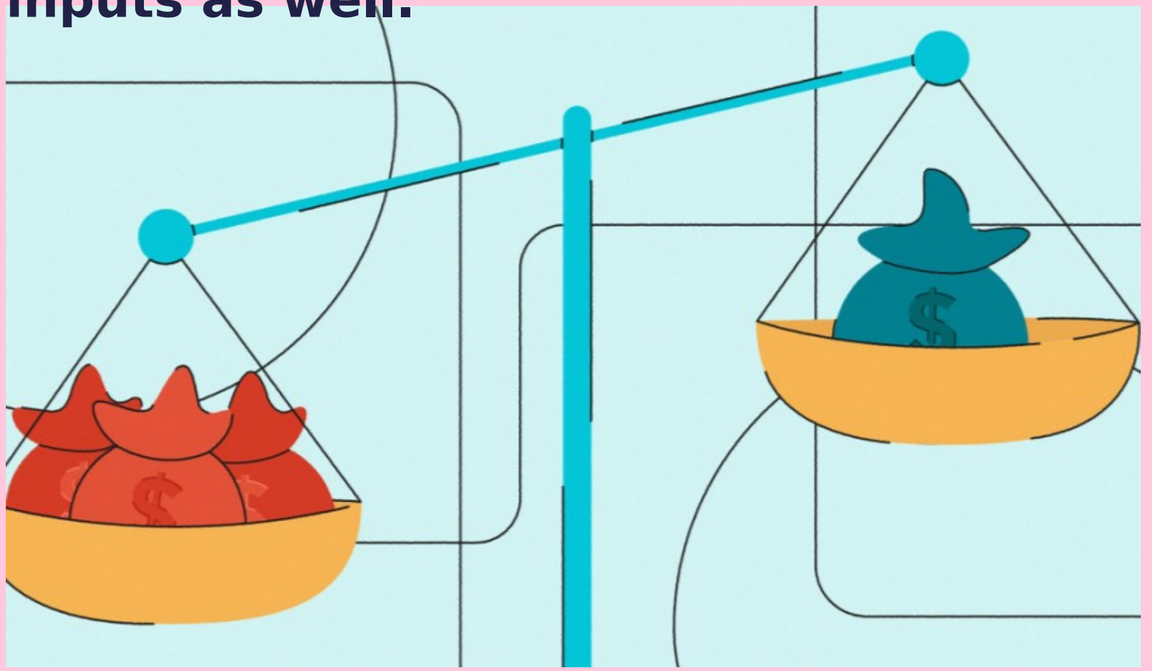
- Is the willingness and ability of a producer to make goods and services available at a variety of costs.

- In supplying goods to someone else, a business incurs costs, and it wants to get as much as it can from the sale to cover its costs and have something left over at the end of the day.

OPPORTUNITY COST

- the cost a producer faces

- producing more of one thing means giving up the opportunity to produce something else and using resources or inputs as well.



OPPORTUNITY COST

THE BENEFIT YOU MISS WHEN YOU MAKE A CHOICE

EXAMPLE

HOW TO SPEND?

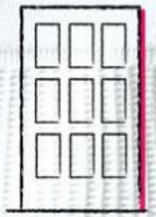
OPTION 1
SPEND ON

OPTION 2
INVEST AT 5%

IF YOU BUY THE SHOES, OPPORTUNITY COST= $5!

HOW USED

COMPANIES



BEST USES FOR $
- NEW PRODUCTS
- REPLACE EQUIPMENT
- PAY DIVIDENDS

PEOPLE

BEST USES FOR
- MONEY
- TIME

FUN FACT

PEOPLE MAKE AROUND 2,000 DECISIONS AN HOUR!

THE LAW OF SUPPLY

- The combination of price and costs

- States that there is a relationship between the price of a good and the amount that people are willing to spend and able to produce it.

HOW DOES IT WORK?

THE LAW OF SUPPLY

When the price that suppliers can receive for a **product increases**, they are willing to produce more of that product. On the other hand, when the price that suppliers can receive for a **product decreases**, they are less interested in producing that good. This is how suppliers express their own self-interest, and it is known as **law of supply.**

The Law of Supply

- According to the law of supply, the higher the price, the larger the quantity produced.

MARKET AND EQUILIBRIUM

MARKET

is a place where sellers and buyers, suppliers and demanders, interact.

EQUILIBRIUM

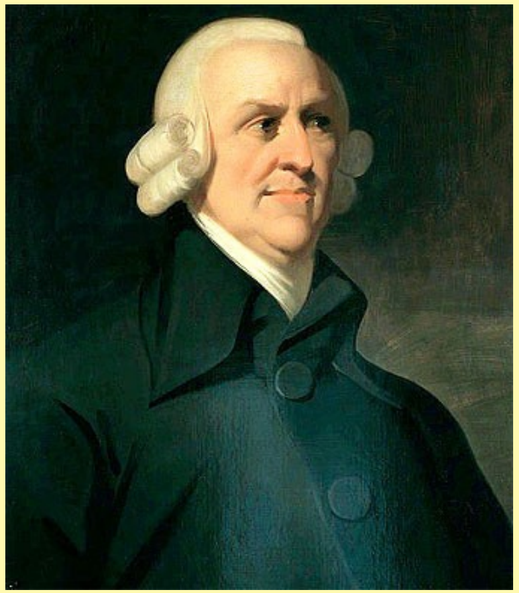
is an economic term for a place of rest for the market, a place from which there is no pressure on the part of buyers or sellers to move.

According to Davis (1997), To examine equilibrium, you must look at what buyers and sellers are willing to do individually. The desires of buyers are shown in their demand Schedule, and the desires of suppliers are shown in their supply schedule. Once these two set desires are combined, it is possible to find

"allow them to do"

OVERVIEW OF MARKET STRUCTURES

APPLIED ECONOMICS



Adam Smith

Published his book An inquiry into the nature and Causes of the Wealth of Nations in 1776, the average factory was small, and most businesses were competitive (Clayton 1995).

Laissez-faire, the philosophy that government should not interfere with the commerce or trade, dominated Smith's writing.

It is a French term that means **"allow them to do".** Under the laissez-faire, the role of the government is confined to protecting businesses against foreign

Free-market competition determines how much things should cost
Entrepreneurs determine what should be produced
The government should not intervene in the marketplace
LAISSEZ-FAIRE ECONOMICS
The state cannot know what each individual wants
Society thrives if the economy is left in the hands of those who can compete
Free-market competition determines how much of each product should be produced

MARKET STRUCTURE

Is the ***nature and degree*** of competition among firms operating ***in the same industry***.

According to Clayton (1995), the following are the different types of market structures:

PURE COMPETITION

- Is a market situation that includes ***independent and well-informed*** buyers and sellers of exactly **the same economic product**. It is the first important type of market structure.

MONOPOLISTIC COMPETITION

- Is the market structure that has ***all the conditions of pure competition*** except for all identical products. It is also tries to attract more customers and monopolize a small portion of market.

OLIGOPOLY

- is a market situation where very ***large sellers of a product dominate.***

MONOPOLY

- is a market structure where there is ***only one seller of a particular economy*** that has no close substitutes.

CONDITIONS OF PURE MARKET

1ST CONDITION

Large number of buyers and sellers exist. No single buyer or seller is large or powerful enough to affect the price of the product.

2ND CONDITION

Buyers and sellers deal in identical products. Buyers do not prefer one seller's merchandise over another. There is no difference in quality, no brand names, and no need to advertise.

3RD CONDITION

Each buyer and seller acts independently. Sellers compete against one another for the consumer's money. Buyers also compete against each other and against the seller to obtain the best price.

4TH CONDITION

Buyers and sellers are reasonably well informed about the items for sale. If a store offers an item for sale at a low price, customers would know about it.

5TH CONDITION

Buyers and sellers are free to enter into, conduct, or get out of business. This freedom makes difficult for a single producer in any industry to keep the market just to itself.

CHARACTERISTICS OF MONOPOLISTIC COMPETITION

CHARACTERISTICS OF MONOPOLISTIC COMPETITION

PRODUCT DIFFERENTIATION

- The characteristic that separates monopolistic competition from pure competition.

- It is the process of distinguishing a product or service from others, to make it more attractive to a particular target market.

CHARACTERISTICS OF MONOPOLISTIC COMPETITION

NON-PRICE COMPETITION

- It happens when advertising or other promotional campaign try to convince buyers that the **product is somehow better** than the other brand.

- When the product is differentiated , non-price competition takes place over price competition.

CHARACTERISTICS OF MONOPOLISTIC COMPETITION

PROFIT MAXIMIZATION

- Similar products generally sell within a **narrow price range** without greatly affecting the sellers competitor's total sales.

- While the Competitive aspect is that if the sellers raise or lower the prices enough, customers will forget minor differences and change brands.

CHARACTERISTICS OF OLIGOPOLY

If one airlines announces discount fares, for example, all
the other airlines generally match the lower prices in matter of day.

CHARACTERISTICS OF OLIGOPOLY

Independent Behavior – only a few firms are part of oligopoly, whenever one firm does something, the other firms usually follow.

Each oligopolist knows that other firms in the industry have considerable power and influences. Therefore, firms tend to act together rather than let anyone upset the status quo.

Collusion- is a formal agreement to set prices or otherwise behave in a cooperative manner.

Price-fixing - is agreeing to charge the same or similar prices for a product.

CHARACTERISTICS OF OLIGOPOLY

Pricing Behavior – while an oligopolists can lower the price of its product at any time, the firm knows that other they are likely to follow suit very quickly. When one firms lowers prices, it could lead to price war.

Price War

– is a series of prices cuts by all producers that may lead to unusually low prices in the industry.

Oligopolist generally prefer to compete on an non price basis. Non price competition has the advantage of making it more difficult to rivals to reach.

CHARACTERISTICS OF OLIGOPOLY

Profit Maximization - the oligopolist , like any other firm , maximizes its profit when it finds the quantity of output where its marginal cost is equal to its marginal revenue.

The final price for the products it likely to be higher than it would be under monopolistic competition, and much higher than it would be under pure competition.

When oligopolists do not collude formally, they still tend to act conservatively and seldom protest price hikes by their rivals.

CALTEX
PHOENIX
Fuels Life
SEAOIL

COMMON TYPES OF MONOPOLY

Natural Monopoly

It is a market situation where cost are minimized by having a single firm produce the product.

Franchise - is an arrangement which gives a company the exclusive rights to do business in a certain area without competition.

Geographic Monopoly

Occur when there is only one company that offers a particular good or service in an area.

An area that is too small to support two or more business becomes geographical monopoly.

A geographical monopoly may not always able to maintain its status.

Technologic al Monopoly

Occurs when a firm or individual has discovered a new manufacturing technique or has invented or created something entirely new. It is a special privilege given to those who invent new product or process.

Patent - is an exclusive right to manufacture, use, or sell any new and useful art , machine , manufacture or composition of matter, or any new and useful improvement thereof.

Government Monopoly

It's a business which the government owns and operates. They are found in the local and national levels.

The involve product that people needs and which private industry may not adequately provide.

Market Structures and their Characteristics						
	Number of Firms in Industry	**Influence over Price**	**Product Differentiation**	**Advertising**	**Entry into Market**	**Examples**
Pure Competition	Many	None	None	None	Easy	Cellphones
Monopolistic Competition	Many	Limited	Fair Amount	Fair Amount	Easy	Women's Clothing
Oligopoly	Few	Some	Fair Amount	Fair Amount	Difficult	Oil
Pure Monopoly	One	Extensive	None	None	Almost Impossible	Electricity

Sources: Economics, Principles, and Practices

LABOR SUPPLY AND LABOR MARKET

LABOR MARKET

Buying and selling of time and effort of different kinds of workers (Mandel, 2009).

Most indispensable market in the economy. Without input labor in the market, there is no productive activity.

Nature of work changes. From secretaries to fashion designers, network technicians rather than factory workers, thus it is essential.

Wages - the price of labor, are set by the interaction between supply and demand.

BASICS OF LABOR MARKET

Giant matching game in which job seekers hop from one interview to one another, and managers roll prospective in and out of the office, with everyone looking for right match. However, such innovations as online job sites make it easier to quickly scan many potential jobs and even candidates.

LABOR SUPPLY

Labor force - part of the adult population that is either working or looking for a job.

Labor force participation rate - the share of the adult population that is in the labor force.

Labor supply curve - given the wage of how many people are in the labor force that is working or looking for work.

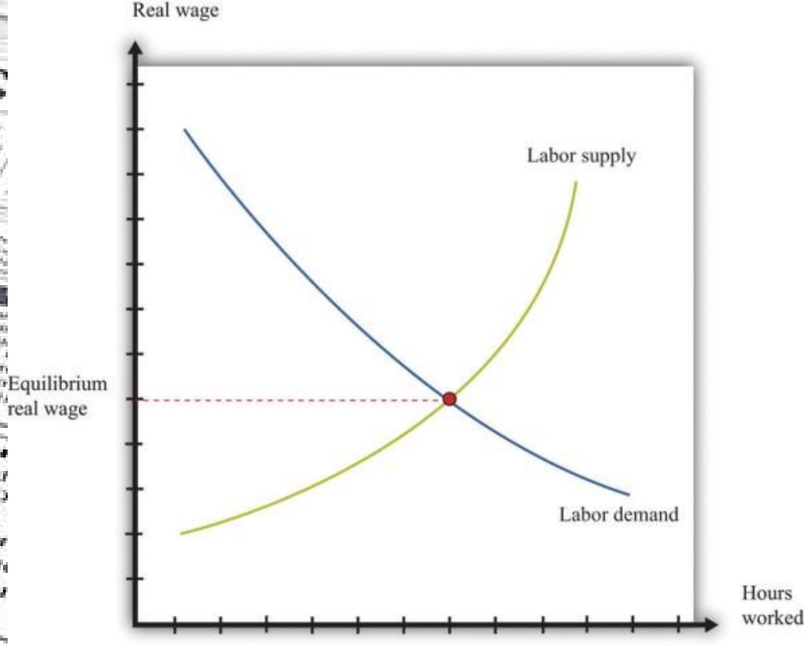
Ex: The high-paying tech jobs of the 1990's caused so many young people to forego graduate school and go to directly to a work for a tech firm. Then when the economy went into recession in 2001, and inform within technology companies experienced a sharp drop in demand.

The general rule is straight forwards: if the wage for a job increases, more workers (or more hours) will be available for that job. This is the law of supply applied to the labor market

LABOR MARKET EQUILIBRIUM

Basic mechanism where the wage either rises or fall to the point where the number of workers available for a particular type of job is just equal to the number of workers that business are willing to hire.

According to Mandel (2009), the wage is set by the interaction of supply and demand in the labor market, just like any other market.



THE IMPACT OF TECHNOLOGICAL CHANGE IN LABOR SUPPLY

Technology can either be a substitute or a complement for labor. Technology is a substitute for a labor as a business hire fewer workers at the same wage.

Ex: Usage of automated telephone answering systems, such as voice mail, dramatically reduces the need for secretaries and phone operators.

IMPACT OF GLOBALIZATION

According to Gindin S and Mc Nally D (2016), Globalization is a process of interaction and integration among the people, companies, and governments of different nations.

Ex: Globalization and advances in communication technology make it possible for multinational companies to hire and communicate with workers across the country or the other side of the world.

FACTORS THAT CAN AFFECT THE PRESENT LABOR MARKET:

1.EDUCATION

Education has become the key qualification that workers need. Employers that offers a good jobs wants to see an applicant with a bachelor's or associate degree. The government implemented the K-12 educational system to be up to par with other countries in the world.

2.AGE AND EXPERIENCE

Work experience makes a difference. Older workers tend to earn more than younger workers. In the Philippines, we have optional retirement at the age of 60 and a mandatory retirement of 65 as set by our own laws.

FACTORS THAT CAN AFFECT THE PRESENT LABOR MARKET:

3.THE MINIMUM WAGE

The minimum wage law sets a limit for hourly wages for most workers. The basic supply-demand analysis is straightforward: a minimum wage lifts the wages of the lowest-paid workers are above their market wage. Department of Labor and Employment sets the minimum wage law.

4.THE WORKING HOURS

Our present Labor Code mandates an eight-hour working day in a day for health reasons. Consider the length of the working day. As a result, limitations on work hours impose extra expenses on businesses.

MONEY AND PHILIPPINE PESO

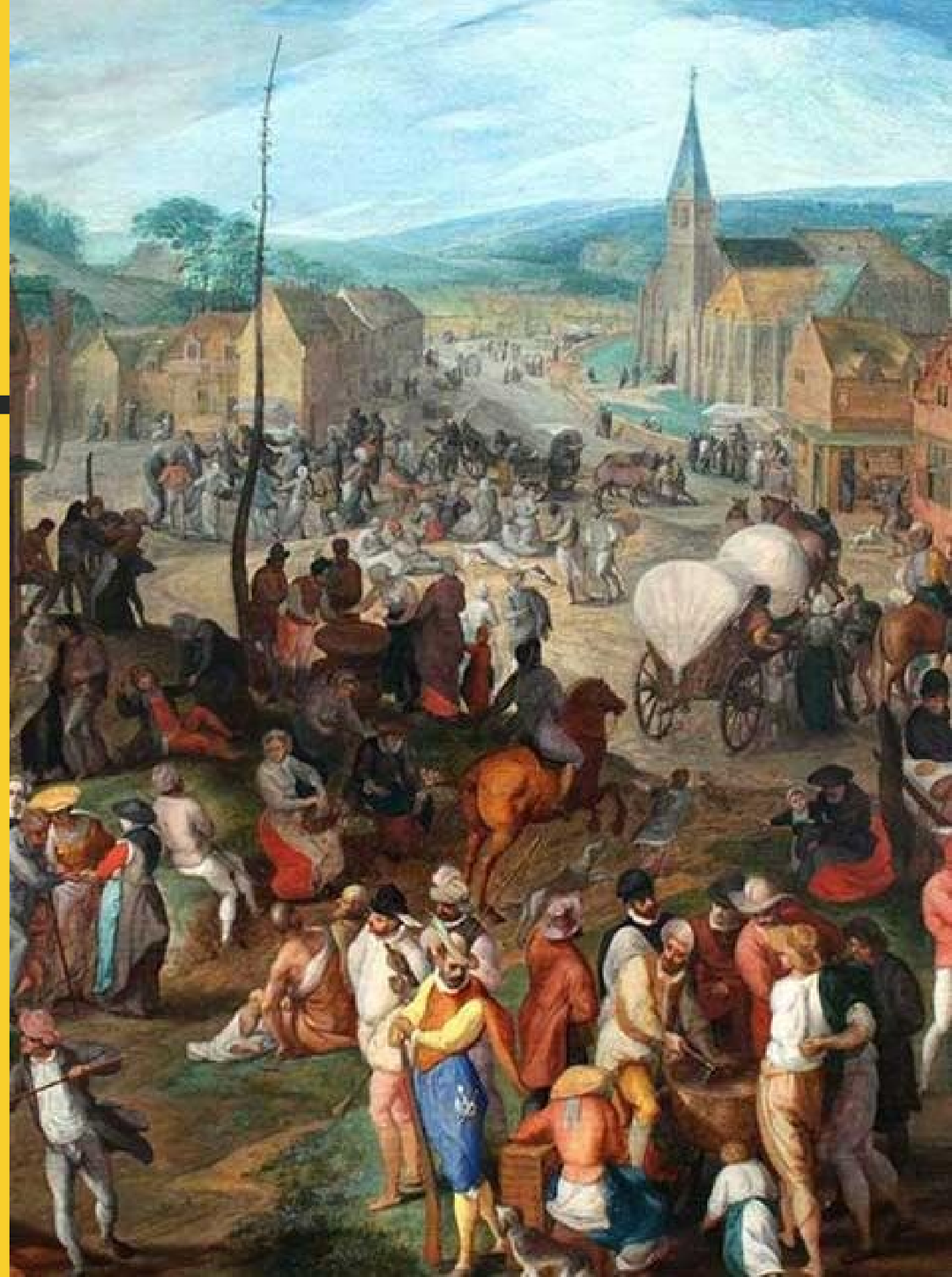
Money is anything that is generally accepted by people in exchange for the things they sell or work they do.

Each country has a basic unit of money. In the Philippines, for example, the basic unit is Philippine Peso, the United States uses U.S. dollar, Canada uses Canadian dollar, Japan uses Yen, Mexico the Mexican Peso, Russia is the Ruble, Switzerland the Franc, and the United Kingdom the pound. Basically, Currency is the money used in a specific country.

BRIEF HISTORY OF MONEY

In our country before, we had no system of money and in order to get the things they wanted, people used the barter system as trading. It included animal hide, cattle, cloth, salt, and articles of gold and silver. People began to use such merchandise as medium of exchange, such as we use money. (Dotey & Fischer 2001).

In the developing countries of Asia, Africa, and Latin America, is where barter still present. There are many families in this countries in which the livelihood is farming and they can’t afford to sustain their need. As a result, they must do the barter system to sustain the things they want.



THE FIRST COIN

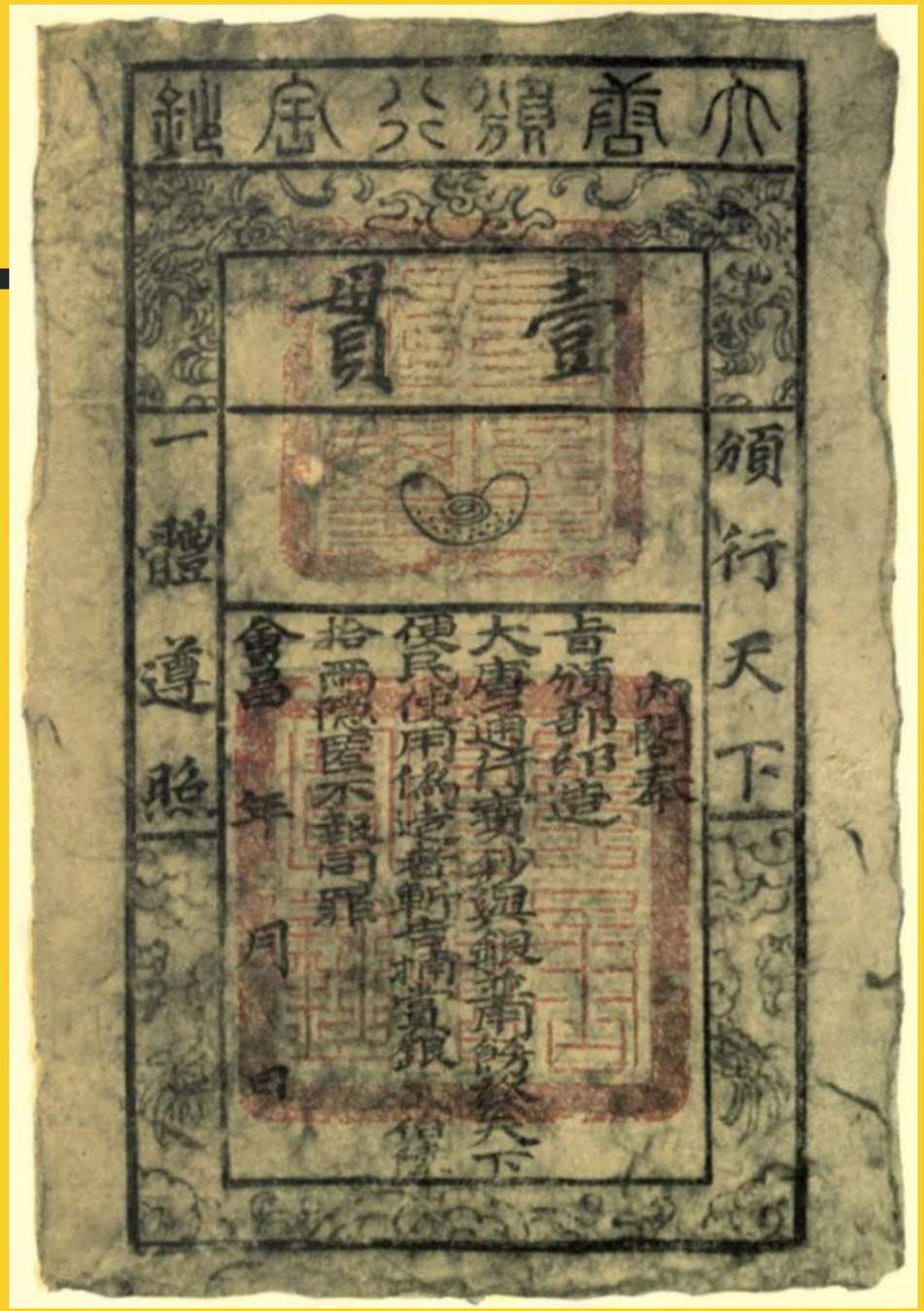
Coins are made during the 600s B. C. in Lydia, a country that is now known as western Turkey. Coins were bean-shaped lumps with a natural mixture of gold and silver or also called electrum. Traders accepted these coins instead of cattle, cloth, gold dust, or other goods as medium of exchange. Other countries found its usefulness, so they began to create their own coins.

Many historians believe that coins were invented independently in ancient China and India. Chinese used knives, spades, and other metal tools as medium of exchange.

PAPER MONEY

Paper money developed in China during 600 A.D. Marco Polo, the Italian trader, travelled to China in 1200s and was amazed to see that Chinese used paper money. In his book “All his (the Chinese emperor’s) subjects receive in paper money without hesitation because, wherever their business may call them, they can dispose of it again in the purchase of merchandise they may require.”

[Europeans] did not understand the value of paper money. As a result, they don’t use it until the 1600s, when banks began to issue paper money bills, called bank notes in which can be used in exchange of gold or silver coins on deposits in the bank.



THE THREE MAIN USES OF MONEY

AS MEDIUM OF EXCHANGE

The first and most important use of money. Without a medium of exchange, people would have to trade their goods or services directly for other goods or services and this kind of trading is called barter.

AS UNIT OF ACCOUNT

Money serves as a unit of account. People state the price of goods and services in terms of money.

AS A STORE OF WEALTH

People can save money and then use it to make purchase in the future. It includes gold, jewels, paintings, real estate, and stocks and bonds.

The Philippine Peso

OUR MONEY AND THE ~~ECONOMY~~

APPLIED ECONOMICS

The Philippine peso is the official currency of the Philippines and denoted by the symbol of (₱). Can be written in “Php” or “P”. The peso is subdivided into 100 centavos and as a former colony of the United States, the country used English on its currency, with the word “peso” appearing on notes and coinage until 1967.

The quantity of money affects the level of prices, economic growth and the amount of employment. If the money supply increases, people have extra money, and their demand of product grows. In response of this, manufacturers hire more workers to increase output. Earning rises and spending increases that leads to economic growth.

A government’s chief methods of promoting these goals which are to promote economic growth and high employment with a minimum increase in prices are by its monetary policy and its fiscal policy.

Monetary policy refers to how a government influences such factors as interest rates, the availability of loans, and the money supply. Fiscal policy refers to government’s taxing and spending programs.

FOREIGN CURRENCY AND THE BALANCE OF PAYMENTS

FOREIGN EXCHANGE

Defined as the exchange or conversion of one currency to another currency. Foreign exchange is usually abbreviated as “**forex**” and occasionally as “FX”.

Balance of Payment is the difference between a nation’s receipts of foreign currency and its expenditures of foreign currency. If the country’s receipts exceed its expenditures, the world price of a country’s currency will rise and it is called **balance-of-payments surplus.**

COUNTRY	UNIT	SYMBOL	US DOLLAR EQUIVALENT	PHILIPPINE PES
UNITED STATES	DOLLAR	USD	1.000000	50.346000
JAPAN	YEN	JPY	0.008887	0.447400
UNITED KINGDOM	POUND	GBP	1.136425	68.108100
HONGKONG	DOLLAR	HKD	0.128041	6.446400
SWITZERLAND	FRANC	CHF	1.016777	51.190700
CANADA	DOLLAR	CAD	0.775254	39.030900
SINGAPORE	DOLLAR	SGD	0.741620	37.337600
AUSTRALIA	DOLLAR	AUD	0.756400	38.081700
BAHRAIN	DINAR**	BHD	2.651113	133.472900
SAUDI ARABIA	RIAL	SAR	0.266660	13.425300
BRUNEI	DOLLAR	BND	0.738880	37.199700
INDONESIA	RUPIAH	IDR	0.000074	0.003700
THAILAND	BAHT	THB	0.030613	1.541200
UNITED ARAB EMIRATES	DIRHAM	AED	0.272272	13.707800
CHINA	YUAN***	CNY	0.151309	7.617800
KOREA	WON	KRW	0.000920	0.046300
EUROPEAN UNION	EURO	EUR	1.190400	59.931900

Foreign Exchange Rate

The conversion rate of one currency into another depends on the local demand for foreign currencies and their local supply, the country's trade balance, strength of its economy, and other factors.

Source: Reference Exchange Rate Bulletin

CURRENCY EXCHANGE RATES

February 16, 2018 (Ref: WESTERN UNION WU)

	USD	52.07		KWD	172.86
	JPY	0.49		SAR	13.89
	GBP	73.14		BND	38.88
	HKD	6.66		IDR	0.004
	CHF	56.32		OMR	134.55
	CAD	41.52		AED	14.18
	SGD	39.72		EUR	64.84
	AUD	41.26		KRW	0.05
	BHD	137.23		CNY	8.15
	QAR	14.22		TWD	1.78

FW NEWSBEAT

DON'T FORGET TO SHARE

FACTORS DETERMINING EXCHANGE RATES

There are fundamental forces that determine the supply and demand for currencies and hence, causing them to shift. According to Davis (1997), these factors are the following:

1. CHANGES IN A COUNTRY'S INCOME.

The demand for imports depend on the income of the country.

2.CHANGES IN A COUNTRY'S PRICES

If the Philippines has more inflation, foreign goods will become cheaper

3.CHANGES IN INTEREST RATES.

People like to invest their savings in assets that will yield the highest return.

4.CHANGES IN TRADE POLICY

The demand for imports is affected by a government's trade policy.

LABOR MIGRATION AND THE PHENOMENON OF OVERSEAS FILIPINO WORKERS

Labor migration is defined as the movement of people from one country to another for the purpose of employment and it has become the key to globalization.

An estimated of 105 million people are working overseas other than their country of birth. There are still many migrant workers who are vulnerable and assume significant risks during migration process even though they ensure the protection for workers.

Commission of Filipino Overseas (CFO)

FILIPINO IMMIGRANTS

According to the Commission of Filipino Overseas (CFO), the agency responsible for promoting and upholding the interest of Filipino emigrants and Filipino permanent residents in other countries, there are ten million Filipino working and living in other countries.

As a result, a growing number of both sending and receiving countries view labor migration as an integral part of their national development and employment strategies. On the other hand, for destination countries facing labor shortages, orderly and well-managed labor migration can lighten labor scarcity and facilitate mobility (International Organization for Migration, 2017).

The top three countries where the biggest numbers of Filipinos reside:

UNITED STATES

3 million

KINGDOM OF SAUDI ARABIA

almost 1 million

UNITED ARAB EMIRATES

600,000

The salaries are higher than our country which attracts more Filipino that wishes for success in other countries. This might result in the issue of “brain drain” or the departure of educated professionals in our country for better pay or better living condition outside the Philippines.

THANK YOU!

Have a good day!